

XIII. On *Edgeworthia*, a new Genus of Plants of the Order Myrsineæ. By HUGH FALCONER, M.D., Superintendent of the Hon. East India Company's Botanic Garden at Saharunpore. Communicated by J. F. ROYLE, M.D., F.R.S., F.L.S., &c.

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EDGEWORTHIA.

Nat. Ord. Myrsineæ. *Tr.* Theophrasteæ.

Calyx 5-partitus; laciniis obtusis imbricatis. *Corolla* hypogyna, subcampanulata; tubo brevi crasso, intus squamis 5 adnatis acuminatis, cum limbi 5-partiti lobis acutis (in æstivatione contorto-imbricatis) alternantibus, instructo. *Stamina* 5, corollæ tubo inserta, ejus denique laciniis opposita, exserta; filamenta subulata, basi cum squamis confluentia; antheræ extrorsæ, versatiles, loculis longitudinaliter dehiscentibus. *Ovarium* uniloculare; placenta basilaris, parva; ovula pauca, erecta, anatropa. *Stylus* elongatus, in alabastro etiam exsertus! *Stigma* minutum, indivisum. *Drupa* mono- (rarò di-) sperma. *Semen* peltatum, hilo lato excavato umbilicatum; testâ osseâ. *Embryo* intra albumen (cartilagineum) ruminatum excentricus, transversè arcuatus. *Radicula* infera.—Arbuscula *sempervirens*; foliis *alternis exstipulatis, solitariis vel fasciculatis, ellipticis, integerrimis, coriaceis, marginatis*; ramis *spinescentibus*; pedicellis *bracteolatis*; floribus *parvis, subsessilibus, in capitula axillaria subumbellata densè coacervatis, chloroleucis*; drupâ *eduli dulci*.

Obs. 1. Genus, inter *Theophrasteas, Jacquinia* et *Theophrastæ* juxta characteres tribuales affine, sed ab utroque et a sociis albumine ruminato, necnon inflorescentiâ, distinctum. Notatu dignissimum, stylum etiam in alabastro exsertum!

Obs. 2. *Edgeworthiam* nuncupavi, in honorem amicissimi M. P. Edgeworth Armigeri, generis præclari haud indignæ prolis, botanices peritissimi, et ob studia communia atque familiaritatis vincula pariter mihi cari. Complures stirpes a se ipso in montibus Emodi et Hindostaniæ provinciis borealibus lectas mecum humanissimè communicavit, quarum non paucas huc usque incognitas, proprio Marte indagavit.

EDGEWORTHIA BUXIFOLIA (TAB. IX.).

Habitat in collibus aridis provinciarum Taxilæ et Peucelaotis in Bactriâ Inferiore; passim obvenit prope Peshawur, Cohaut et Attock. Indigenis "Goorgoora" nominata. Floret

Februario; fructus maturescit Julio. Semina dura globosa vulgò in monilia precatória conseruntur.

DESCR. Arbuscula speciosa, sempervirens, in locis idoneis 12-14 pedes alta, ramosissima, conferta, habitu *Buxum* quamdam referens; trunco nunc diametrum cruralem attingente. Lignum durum, compactum; medulla centralis densè cellulosa; radii medullares attenuati, crebri, lamelliformes; corpus ligneum in segmenta amorphæ utrinque confluentia disruptum, adeò ut lignum transversè sectum insigniter variegatum videatur; zonæ annotinæ nullæ distinctæ. Rami crassi, teretes, ferè ad basin caulis emissi, patentes, divergentes, foliorum delapsorum vestigiis tuberculati, cortice cinereo corrugato glabro; laterales abbreviati, gemmarum abortu in spinas robustas desinentes; novelli pube albicante villosâ obtecti. Folia valdè conferta, præsertim versus ramorum extremitates aggregata, undique emissa, alterna, exstipulata, solitaria vel 3tim 4ternatimve fasciculata, patentia, simplicia, integerrima, elliptica vel obovata, obtusa, coriacea, crassa, avenia, pollicem-sesquipollicem longa, $\frac{1}{2}$ - $\frac{3}{4}$ -pollicem lata, glabra, suprâ lævia nitida lætè viridia, subtùs pallida cinereo-glaucæ, margine calloso angusto subreflexo; novella villosa, in æstivatione complicata: costâ parùm elevatâ gracili. Petioli breves, crassiusculi, teretes, æquales, 2-3-lineas longi; juniores villosuli. Flores parvi, hermaphroditi, sessiles, in capitula parva axillaria sessilia segregata vel versus ramorum extremitates confluentia 4-10-flora coacervati; puncta glandulosa nulla. Pedunculus subnullus. Pedicelli brevissimi, crassiusculi, rufescentes, scabriusculè puberuli, bracteis minutis ovatis concavis persistentibus conformitèr puberulis suffulti. Calyx campanulatus, 5-partitus, minutus, persistens; laciniis obtusis, concavis, adpressis, subinæqualibus, densè puberulis, fuscis, imbricatis. Corolla hypogyna, subcampanulata, chloroleuca, calyce duplò longior; limbus 5-partitus, laciniis oblongo-lanceolatis, concavopatulis, acutis, in æstivatione contorto-imbricatis; tubus brevis crassus, intùs squamis 5 (staminodiis) adnatis, latè lanceolatis, setoso-acuminatis, exsertis, in æstivatione flexuoso-tortis, cum laciniis corollæ alternantibus, instructus. Stamina 5 corollæ tubo inserta ejusdemque laciniis opposita, exserta. Filamenta subulato-filiformia, tubo adnata, basi cum squamis confluentia, apice in æstivatione flexuoso-torta, nuda. Antheræ extrorsæ, ovatæ, basi bifidæ, apice acutæ integræ, medio dorso affixæ, subversatiles, biloculares, longitudinaliter dehiscentes; valvulis inæqualibus, exterioribus duplò latioribus. Pollinis granula ovoidea, utrinque obtusa. Ovarium ovato-hemisphericum, uniloculare, latâ basi sessile, liberum, pilis longis scabriusculis adpressis densè obtectum; placentâ parvâ, basilari, sessili. Ovula (semper ferè) 5, erecta, approximata, conniventi-verticillata, pressione mutuâ subcuneiformia, dorso crassa convexa, ventre attenuata plana, basi angustata, anatropa, funiculis brevissimis affixa; raphe latâ manifestâ, foramine umbilico approximato. Stylus elongatus, subdeclinatus, subulatus, apice acutatus, crassiusculus, exsertus, etiam in alabastro ultra corollam protrusus. Stigma terminale, minutum,

indivisum. Fructus drupaceus (recentem nondum vidi) globosus, apice depressus, abortu 1- rarò 2-spermus, subsessilis, basi calyce persistente instructus, magnitudine Uvæ minoris; sarcocarpio carnoso saccharino dulci. Semen abortu solitarium, rotundissimum, (vel nunc duo semiglobosa) diametro 4 lineas emetiens, erectum, sessile, hilo lato excavato impresso umbilicatum, foveis 3-4 impressis (ovulorum abortientium vestigiis) juxta hilum notatum; testa glaberrima, lævigata, fusca, ossea, intùs undique lamellis verticalibus elevatis crassis robustis flexuosis, albuminis sinus profundè penetrantibus, asperata; processu umbilicali incrassato, irregularitè conico, lacero, ad medium usque albuminis intruso; micropyle juxta hilum prominulâ discolori; membrana interior adnata, spongiosa, fusca; albumen copiosum, embryone triplo majus, cartilagineum, album, lobatoruminatum. Embryo magnus, subexcentricus, respectu umbilici transversè arcuatus, amphitropus, albidus; cotyledones elongatæ, planæ, foliaceæ, latiusculæ; radícula teretiuscula, crassa, brevis, hilo approximata; plumula inconspicua. (Vidi viv. Descript. et icon. ad exempla sicc. confect.)

Edgeworthia is one of the most characteristic forms of Lower Affghanistan, occurring in great abundance near Peshawur, and in the neighbouring hills. It grows associated with a species of *Dodonæa* (*D. dioica*, Roxb.?), *Olea Laitoona*, an undescribed Aselepiadeous genus (*Campelepis* *), and a species of *Rhazya*, all of which are prevailing forms. I met with it in August 1837, and it was subsequently found by Mr. W. Griffith, to whom I owe the first knowledge of the remarkable fact of the style being protruded in the bud.

I follow most systematic botanists in considering *Theophrasteæ* as a section merely of *Myrsineæ*; the distinctive characters of the tribe not appearing

* CAMPELEPIS.

Nat. Ord. Asclepiadææ, Tr. Periploceæ.

Corolla rotata, 5-fida; fauce coronatâ squamis 5 cum segmentis alternantibus, brevibus, flexuoso-trilobis, confluentibus, medio aristatis, aristis filiformibus erectis apice uncinatis; tubo intùs squamulis totidem inclusis, laceris, patentibus, staminibus oppositis, instructo. *Filamenta* distincta, fauci infra squamas inserta. *Antheræ* sagittatæ, apiculo acuto terminatæ, dorso barbatae, basi stigmatis medio adglutinatæ. *Massæ pollinis* solitariae, granulosæ, corpusculorum stigmatis appendiculis dilatatis applicitæ. *Stigma* dilatatum, muticum. *Folliculi* cylindracei, læves, divaricatissimi. *Semina* ad umbilicum comosa.

Frutex erectus, ramosissimus, glaber, quasi aphyllus; foliis squamæformibus, deciduis, remotis; cymis brevè pedunculatis, paucifloris; floribus parvis, coriaceis; corollæ laciniis intùs prope apicem barbatis, disco leprosis.

Campelepis viminea.

Habitat passim in Bactriâ Inferiore; prope Peshawur, Attock, &c.

sufficiently numerous or important to entitle it to the rank of a separate order. The other genera of true *Theophrasteæ* are South American, and the occurrence of *Edgeworthia* upon the skirts of the Continent of India is a fact of some interest. Of the species which are associated with it, two are of genera common to Northern Africa and Affghanistan, viz. *Forskählea tenacissima*, and *Rhazya Daphneoides*.

Botanic Garden, Saharunpore, July 25, 1841.

EXPLANATION OF TAB. IX.

- Fig. 1. A flowering branch of *Edgeworthia Buxifolia*, of the natural size.
2. A flower-bud, magnified, showing the protruded style.
 3. A flower, magnified.
 4. The corolla slit open, showing the insertion of the stamina and squamæform staminodia.
 5. The persistent calyx and ovary, magnified.
 6. A portion of the corolla, showing the twisted æstivation of the stamina and staminodia in the bud.
 7. The ovary, magnified and laid open longitudinally.
 8. The same, cut transversely.
 9. An ovulum, of the natural size, and magnified.
 10. A ripe seed, of the natural size.
 - 11 & 12. Sections of the seed, showing the ruminated albumen, the position of the embryo, and the thickened core at the base of the testa.
 13. The base of the seed.
 14. The embryo.